UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10, SEATTLE, WASHINGTON

IN THE MATTER OF:

ELEMENTAL PHOSPHORUS SLAG

The Monsanto Company and

FMC Corporation,

Respondents.

Proceeding under Section 7003(a) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6973(a)

Administrative Order on Consent Docket No. 1092-11-04-7003

RECEIVED NOV 4 - 1992

Τ. INTRODUCTION

This Administrative Order on Consent 1.1 ("Consent Order") is entered into voluntarily between The Monsanto Company, FMC Corporation (hereinafter collectively referred to as "Companies") and the United States Environmental Protection Agency ("EPA"). This Consent Order documents the commitment of EPA and the Companies to work together to conduct further studies regarding the release of radionuclides associated with elemental phosphorus slag in Southeast Idaho. By signing this Consent Order, the Companies consent to issuance of this Consent Order.

II. JURISDICTION

This Consent Order is issued under the 2.1 authority vested in the President of the United States by Section CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 1

4 5

1

2

3

6 7

8

9

10

11 12

13

14

15

16

17 18

19

20

21

22

23 24

25

26

Resource Conservation and Recovery Act, as amended, ("RCRA"), 42 U.S.C. § 6973(a). This authority was delegated on March 20, 1985 from the EPA Administrator to the Regional Administrators by EPA Delegation No. 8-22-A and C; and further delegated to the EPA Region 10 Director, Hazardous Waste Division, by Regional Redelegation Order R10 1281.8 on September 30, 1985.

2.2 The Companies agree to undertake all actions required by this Consent Order. In any action by EPA or the United States to enforce the terms of this Consent Order, the Companies agree not to contest the authority or jurisdiction of EPA to issue or enforce this Consent Order or its terms.

III. PARTIES BOUND

- 3.1 This Consent Order shall apply to and be binding upon EPA and upon the Companies, their successors and assigns. No change in the ownership or corporate or other legal status of the Companies shall alter their responsibilities under this Consent Order.
- 2.2 Each Company shall provide a copy of this
 Consent Order to all contractors, subcontractors, laboratories,
 and consultants retained to conduct any work under this Consent
 Order, and to any subsequent owners of or successors to 25% or
 more of the outstanding shares of the Company or 10% of the total
 assets of the Company. The Companies shall condition any
 contracts to conduct any work under this Consent Order upon
 satisfactory compliance with this Consent Order. Notwithstanding
 CONSENT ORDER FOR THE MONSANTO COMPANY
 AND FMC CORPORATION Page 2

the terms of any contract, the Companies are responsible for compliance with this Consent Order and for ensuring that their subsidiaries, employees, agents, contractors, consultants, subcontractors, and attorneys comply with this Consent Order.

IV. PURPOSE AND OBJECTIVES

- 4.1 In entering into this Consent Order, the general mutual objective of EPA and the Companies is to protect the public health or welfare or the environment with regard to the release of radionuclides in Southeast Idaho. Specifically, the mutual purposes and objectives of the Parties are:
- (A) To study the risk, if any, to exposed individuals from radionuclide releases in Southeast Idaho associated with elemental phosphorus slag, including determining as precisely as possible the level of such releases, and individual radiological exposures to slag-containing materials; and
- (B) To develop graded decision guidelines for ranges of exposures to determine whether further actions may be necessary or appropriate to reduce individual exposures associated with elemental phosphorus slag.

V. DISCLAIMER

5.1 By signing this Consent Order and taking actions under this Consent Order, the Companies do not agree with EPA's Findings of Fact, Conclusions of Law or Determinations. Further, CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 3

acts pursuant to this Consent Order by the Companies shall not be considered an admission of liability for any purpose in any proceedings, and are not admissible as evidence against the Companies in any judicial or administrative proceeding other than a proceeding by the United States, including EPA, to enforce this Consent Order. The Companies agree not to contest the validity or terms of this Consent Order in any action brought by EPA to enforce this Consent Order.

VI. EPA FINDINGS OF FACT

6.1 Based on information available to EPA and for the purposes of this Consent Order, EPA makes the following Findings of Fact:

A. The Monsanto Company and FMC Corporation operate elemental phosphorus manufacturing facilities respectively in Soda Springs, Idaho and Pocatello, Idaho. Elemental phosphorus slag ("slag") is a by-product of the operation of those facilities.

B. The Monsanto Company is a Delaware Corporation authorized to do business in the state of Idaho. FMC Corporation is a Delaware Corporation authorized to do business in the state of Idaho. Mailing addresses for the purposes of this Order are:

C.M. McCullough, Plant Manager Monsanto Chemical Company Soda Springs Plant Post Office Box 816 Soda Springs, Idaho 83276

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 4

J.T. Bernasek, Plant Manager FMC Corporation Post Office Box 4111 Pocatello, Idaho 83202

- C. The slag has been used in residential construction; as paving aggregate for highways, streets and sidewalks, including most of the streets in the cities of Soda Springs and Pocatello; airport tarmacs; in roofing materials; construction fill; and other uses in southeastern Idaho, including the counties of Caribou, Bannock and Power.
- D. The state of Idaho prohibited the use of slag for residential construction in 1976. Immediately thereafter, the Companies voluntarily suspended the use of slag in the construction of all inhabited buildings. Slag continued to be sold and used for other purposes such as road construction.
- E. In 1977 and 1978, the Idaho Department of Health and Welfare ("IDHW") conducted a gamma survey ("Peterson Survey") in areas of Southeast Idaho, primarily Soda Springs and Pocatello, where slag construction was prevalent. Gamma readings associated with many residential properties in Soda Springs exceeded 20 uR/hr, a level which may pose a public health concern (40 C.F.R. § 192.12(b)(2)).
- F. EPA's Idaho Radionuclide Study ("Idaho Study") issued in April 1990, estimated radiation doses to populations in Soda Springs and Pocatello from a variety of area sources. The study concluded that the "primary source of gamma radiation in both Pocatello and Soda Springs is radioactive slag, a residue

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 5

4 5

from phosphate industry processes." The Idaho Study further concludes that "exposure to outdoor sources is the greatest contributor to the population dose in Pocatello, due to slag used in street paving, while that to the residents of Soda Springs is mostly due to indoor (home) exposure, caused by slag in home foundations." EPA determined on the basis of the Idaho Study that there was a need to conduct additional sampling and monitoring to determine individual radiation exposures associated with past uses of slag in southeastern Idaho.

- G. Following the release of the Idaho Study, the Companies voluntarily suspended the sale of slag for all construction uses pending the resolution of issues regarding the past and future use of slag.
- H. The Shoshone-Bannock Tribe passed a resolution in 1990 prohibiting the use of slag on reservation lands.
- I. The EPA Science Advisory Board ("SAB") issued a letter report on January 21, 1992, to the EPA Administrator regarding the Idaho Study. The report recognized that "gamma-radiation exposure levels from elemental phosphorus slag can reach 60-65 uR/hr in some areas, which is 4-5 times the background level prevalent in Southeastern Idaho." Further, the report recognized that "elevated gamma radiation levels occur in Pocatello and Soda Springs such that some persons could receive doses above the widely accepted population exposure guide of 100 millirems per year in excess of natural background".

CONSENT ORDER FOR THE MONSANTO COMPANY

AND FMC CORPORATION - Page 6

J. The SAB recommended that EPA: (i) "work with local and state officials, the public and industry to make measurements for individuals based on their particular exposure conditions"; (ii) "establish a set of graded decision guidelines based on technical and economic factors for both short-term and long-term exposure of the public due to past uses of slag"; and (iii) "make risk assessments for those persons exposed within the decision guidelines and provide them with information for making informed decisions".

K. A draft 1992 EPA report on diffuse Naturally Occurring Radioactive Materials (NORM) waste estimated the 70year lifetime risk of acquiring a fatal cancer from one year of exposure to slag in building materials (average estimated concentration of 33 picoCuries/gram for Radium-226), exclusive of the radon inhalation pathway, to be approximately four (4) in 1000 for average persons in the critical population group.

Notice of this Consent Order has been given to the state of Idaho and the Shoshone-Bannock Tribes.

EPA CONCLUSION OF LAW VII.

7.1 The radionuclide bearing slag generated by the Companies' elemental phosphorus manufacturing plants, is a "solid waste", as defined in Section 1004(27) of RCRA, 42 U.S.C. \$ 6903(27).

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

26

27

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 7

VIII. DETERMINATION

8.1 EPA has determined that the handling or use of slag as a construction material in buildings, roads and other construction in Southeast Idaho may present an imminent and substantial endangerment to public health or the environment.

IX. WORK TO BE PERFORMED

- 9.1 The activities conducted under this Consent Order are subject to EPA approval and shall be conducted in accordance with applicable or relevant and appropriate laws, regulations, EPA guidance, policies and procedures.
- EPA-approved Work Plans and Schedules for determining the extent and level of radionuclide releases associated with slag use in Southeast Idaho. Specific tasks shall be detailed in the Work Plans and implemented according to the Schedules. The Companies shall submit a Methods Development Work Plan and an Exposure Study Work Plan to EPA for review and approval. Each Plan shall include a statement of work and workflow chart; a sampling and analysis plan; a quality assurance/quality control plan; a data management plan; a health and safety plan; and an implementation schedule. The Methods Development Work Plan shall also include, but not be limited to, the following provisions:
 - a) protocols for determining background reference rates of exposure;

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 8

- b) protocols for collecting accurate, precise, representative, complete, and comparable exposure data on individuals who may need to modify their exposure conditions;
 - c) protocols for ascertaining and validating the statistical significance of data sets;
 - d) protocols for slag identification, home testing, personal dosimetry programs, time-of-exposure studies, outdoor surveys, and establishing an inventory of past uses and location of slag-bearing materials; and
 - e) protocols for integrating the quality assured survey data from relevant studies, including but not limited to, the Peterson and Idaho Studies.
- 9.3 The draft Methods Development Work Plan and Schedule shall be submitted to EPA within sixty (60) days after the effective date of this Consent Order.
- 9.4 The Companies shall commence methods development activities as set forth in the approved Work Plan, including necessary sampling and monitoring, within thirty (30) days after EPA approval of the Work Plan.
- 9.5 While the Companies are working on methods development, EPA and the Technical Work Group ("TWG") described in Section X below, will begin development of graded decision guidelines consistent with the SAB recommendations to the maximum extent practicable. EPA will finalize these guidelines before CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION Page 9

the Companies commence their exposure studies. Radiation protection principles, EPA risk assessment guidance, applicable or relevant and appropriate laws and promulgated regulations, the BEIR (Biological Effects of Ionizing Radiation) V Report, and ICRP (International Committee on Radiation Protection) 60 shall be considered in developing these guidelines. The guidelines are intended to be used to evaluate the exposure data that will be generated by the Companies' studies under this Consent Order.

- Within sixty (60) days after written EPA approval of the Methods Development Study Final Report, the Companies shall submit the draft Exposure Study Work Plan to EPA for review and approval.
- The Companies shall commence their exposure studies in accordance with the EPA approved Exposure Study Work Plan within thirty (30) days after written EPA notice that the graded decision guidelines have been finalized, and the Exposure Study Work Plan has been approved.
- 9.8 Progress reports shall be submitted by the Companies to EPA on or before the tenth (10th) day of each month following the month in which this Consent Order is issued.
- 9.9 Upon EPA approval, the Work Plans and Schedules, including all terms and conditions therein, are incorporated into and made an enforceable part of this Consent Order by this reference. The Work Plans, Schedules, and all documents required thereby, or submitted in accordance therewith, shall constitute "deliverables" for purposes of this Consent CONSENT ORDER FOR THE MONSANTO COMPANY

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

Order, including but not limited to, the plans and protocols in Paragraph 9.2, data reports, technical memoranda, and draft and final investigation reports.

9.10 At EPA's direction, the Companies shall fully correct and modify all deliverables and incorporate and integrate all information and comments supplied by EPA in either subsequent or resubmitted deliverables within fourteen (14) days after receipt of EPA comments, or such longer or shorter time as EPA may specify. At the time the revised deliverable is submitted, the Companies shall submit a cover letter describing how each EPA comment was addressed along with a statement certifying that no other changes were made to the deliverable. Failure to fully modify and correct any deliverable in accordance with this paragraph is non-compliance with this Consent Order. In addition, EPA may unilaterally modify any deliverable, and the Companies shall take action in accordance with such modified deliverable.

9.11 Neither failure of EPA to expressly approve or disapprove a plan, report, deliverable, or any other submission within a specified time period, nor the absence of EPA comments, shall be construed as approval by EPA. All approvals by EPA shall be in writing.

9.12 The following major deliverables required by under this Consent Order shall be subject to review by the TWG: the draft Methods Development Study Work Plan, the draft Methods Development Study Report, the draft Graded Decision Guidelines, CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 11

the draft Exposure Study Work Plan and draft Exposure Study Report.

3

1

2

4

5

6

7

8

9

10

11

13

14

15

16

17

18

19

20

21

23

24

25

26

27

28

X. TECHNICAL WORK GROUP

10.1 The development and implementation of studies and graded decision guidelines as described in this Consent Order may raise complex technical and/or socio-economic issues. and the Companies will establish a Technical Work Group ("TWG") to assist them in addressing these matters. This TWG will provide assistance regarding the design and implementation of the radiological exposure studies and the development of the graded decision guidelines under this agreement. The TWG shall consist of no more than twelve (12) members. EPA and the Companies shall each designate two radiation scientists (4 total) for the TWG. Two community representatives (2) shall be designated, one each by the mayors of Pocatello and Soda Springs. Other members of the TWG shall include the project coordinator and his assistant for EPA (2), the project coordinators for The Monsanto Company (1) and FMC Corporation (1), a representative from the state of Idaho Department of Health and Welfare, and a representative from the Shoshone-Bannock Tribe. EPA and the Companies shall make their designations within fourteen (14) days after the effective date of this agreement.

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 12

XI. ADDITIONAL WORK

11.1 If at any time before the termination of this Consent Order, the Companies identify a need for additional data, the Companies shall submit a memorandum documenting the need for additional data to the EPA Project Coordinator within seven (7) days after such identification.

If EPA determines that other tasks, in 11.2 addition to the tasks defined in the EPA-approved Work Plans required by Section IX above, are necessary to accomplish the purpose and objectives of this Consent Order, EPA will notify the Companies in writing of the additional tasks to be performed. The Companies shall either confirm their willingness to perform the additional tasks in writing to EPA within fourteen (14) days after receipt of the EPA notice, or invoke the dispute resolution provisions in Section XVIII of this Consent Order. Subject to the resolution of any dispute, the Companies shall implement the additional tasks which EPA determines to be necessary. additional tasks shall be completed according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the Work Plan. At any point, EPA may conduct any tasks itself, seek reimbursement of response costs from the Companies, and/or seek any other appropriate relief.

XII. QUALITY ASSURANCE

12.1 Throughout all sample collection,
transportation, and analysis activities conducted pursuant to
CONSENT ORDER FOR THE MONSANTO COMPANY
AND FMC CORPORATION - Page 13

23

25

26

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

- 1

this Consent Order, the Companies shall use procedures for quality assurance ("QA"), quality control ("QC"), and for chain-of-custody in accordance with approved EPA methods. The Companies shall require each laboratory used to perform any work related to this Consent Order to employ approved EPA methods, and to participate in a QA/QC program equivalent to the EPA QA/QC program and to be consistent with the EPA document, QAMS-005/80. The Companies shall submit a QA/QC plan to EPA for approval as part of the Work Plans required by Paragraph 9.2 above. No field work or sampling activities may be initiated by the Companies prior to EPA approval of the QA/QC plan.

XIII. AVAILABILITY OF DATA

- results of all sampling, tests, and other data generated by the Companies pursuant to this Consent Order to EPA and IDHW within seven (7) days after QA/AC review is completed, but in no event later than thirty (30) days after sampling or field testing, in accordance with the EPA-approved Work Plans. All raw data generated pursuant to this Consent Order shall be made available to EPA or IDHW upon request. The deadlines established in this paragraph may be extended by the EPA Project Coordinator in writing upon request by the Companies.
- 13.2 Quality assured information including quality assured data generated pursuant to this Order shall be provided

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 14

to the affected communities, including individual homeowners, as soon as practicable following EPA review.

XIV. ACCESS

14.1 The Companies will obtain or use best efforts to obtain written access agreements from all owners of inhabited dwellings, or those with a possessory interest in such dwellings, to be tested, at least twenty (20) days prior to the time access is needed.

XV. CONTRACTORS

All work performed under this Consent Order 15.1 shall be under the direction and supervision of qualified personnel. Not later than fourteen (14) days after the effective date of this Consent Order, and before any work begins, the Companies shall notify EPA, in writing, of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories, to be used in carrying out such work. The qualifications of the persons undertaking the work for the Companies shall be subject to EPA's review for verification that such persons meet appropriate technical background and experience requirements. notifies the Companies in writing that any person(s) are not adequately qualified, the Companies shall replace said person(s), and shall notify EPA of the identity and qualifications of replacement(s) within seven (7) days after the notice. If EPA CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 15

28

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

subsequently finds replacement(s) to be less than adequately qualified, the Companies shall have failed to comply with this Consent Order and EPA may conduct all or part of the work, seek reimbursement of costs and/or payment of penalties from the Companies, or take any other actions authorized by law. During the course of the work, the Companies shall notify EPA in writing seven (7) days in advance of any changes in, or additions to the personnel used to carry out the work, including their names, titles, and qualifications. EPA shall have the rights set forth in this paragraph to review the qualifications of all new or replacement personnel.

XVI. DESIGNATED PROJECT COORDINATORS

16.1 Not later than five (5) days after the effective date of this Consent Order, the Companies and EPA shall each designate a Project Coordinator. Each Project Coordinator shall be responsible for overseeing his/her principal's implementation of this Consent Order. To the extent possible, all communication between the Parties (including letters, reports, etc) concerning activities related to this Consent Order shall be directed to the Project Coordinators.

16.2 The Companies' Project Coordinators' shall be qualified, competent persons with experience in waste site investigations, and shall have the skills necessary to direct and supervise the activities described in this Consent Order. Upon selection of a Project Coordinator or any replacement thereof, CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 16

the Companies shall submit written notice of the Project Coordinator's qualifications to EPA.

The Parties may change their Project

Coordinator by sending written notification to the other Project

Coordinators no later than five (5) days before such change.

16.4 The Project Coordinator designated by EPA shall have the authority described in the National Contingency Plan ("NCP"), 40 C.F.R. Part 300, as amended, for a Remedial Project Manager or On-Scene Coordinator.

XVII. DOCUMENTS

17.1 All documents transmitted to EPA, including all deliverables and correspondence, related to this Consent Order, shall be delivered to the EPA Project Coordinator, and to such other persons as EPA may specify in writing.

17.2 The Companies shall preserve, for a minimum of five (5) years after EPA approval of the Companies' certification of completion of the matters covered by this Consent Order, all records and documents in their possession or control, or which come into the control of their employees, agents, accountants or contractors which relate to work performed pursuant to this Consent Order, despite any record destruction policy to the contrary. The Companies shall notify EPA in writing at least sixty (60) days prior to the destruction of any such records or documents, of their intent to destroy such

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 17

records or documents after the five (5) year period specified in this paragraph.

the Companies shall submit to EPA copies of any draft and final plans, draft and final task memoranda, including memoranda recording field modifications, recommendations for further action, quality assurance memoranda and audits, drafts and final reports, raw data, field notes, laboratory analytical reports, and any other documents related to activities planned or undertaken by the Companies which relate to this Consent Order. At the time of any such EPA request, the Companies may withhold documents only by asserting, with sufficient justification, that such documents are legally privileged. Such assertion and justification may be challenged by EPA in the proper judicial forum.

The Companies may assert a claim of business confidentiality for part or all of the information they submit to EPA pursuant to this Consent Order. This claim shall be asserted and the information protected in the manner described in 40 C.F.R. § 2.203(b). If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Companies. The Companies shall not assert any confidentiality claim with respect to any sampling or monitoring data.

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 18

XVIII. DELAY AND FORCE MAJEURE

"Force Majeure," for purposes of this Consent Order, is defined as any event arising from causes entirely beyond the control of the Companies and of any entity controlled by the Companies, including their contractors and subcontractors, that delays the timely performance of any obligation under this Consent Order notwithstanding the Companies' best efforts to avoid the delay. The requirement that the Companies exercise "best efforts to avoid the delay" includes using best efforts to anticipate any potential Force Majeure event (a) as it is occurring, and (b) following the potential Force Majeure event, such that the delay is minimized to the greatest extent practicable. Examples of events that are not Force Majeure events include, but are not limited to, increased costs or expenses of any work to be performed under this Consent Order, financial difficulty, normal climatic or precipitation events, or failure of a contractor or subcontractor to perform the obligations under this Consent Order.

18.2 If any event occurs which causes delay in the achievement of any of the requirements of this Consent Order, the Companies shall, no later than twenty-four hours after the occurrence of such event, notify EPA orally of the occurrence and delay. Within seven (7) days after such event, the Companies shall notify EPA in writing of the nature of the delay, the anticipated duration and cause of the delay, the measures taken and to be taken to prevent or minimize the delay, and the CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 19

28

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

schedule to mitigate the effect of the delay. The Companies shall exercise best efforts to avoid or minimize any delay and effects of delay.

delay is attributable to Force Majeure, the time for performance of the obligations under this Consent Order that are directly affected by the Force Majeure event shall be extended by agreement of the Parties for a period of time not to exceed the actual duration of the delay caused by Force Majeure event. An extension of the time for performance of the obligation directly affected by the Force Majeure event shall not, of itself, extend the time for performance of any subsequent obligation.

anticipated delay has been or will be caused by a Force Majeure event, or does not agree on the length of the extension, the issue shall be subject to the dispute resolutions procedures set forth in this Consent Order. In any such proceeding, the Companies shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a Force Majeure event, that the duration of the delay was or will be warranted under the circumstances, that the Companies did exercise or are exercising due diligence by using their best efforts to avoid and mitigate the effects of the delay, and that the Companies have complied with the requirements of this section.

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 20

XIX. DISPUTE RESOLUTION

19.1 Any dispute under this Consent Order may be addressed through the dispute resolution procedures of this section, whether or not specifically authorized by the provisions of this Consent Order.

If a dispute arises under this Consent Order, 19.2 the Companies shall notify EPA's Project Coordinator in writing by certified mail, return receipt requested, of the dispute within fourteen (14) days after receipt of notice from EPA of any deficiency, or that any requirement has not been met. Companies written notice shall define the dispute, and state the basis of the Companies' position. EPA and the Companies shall then have fourteen (14) days from EPA receipt of the Companies' notice to attempt in good faith to resolve the dispute. agreement is reached, the resolution shall be set forth in a written statement, signed by the Parties, and incorporated into this Consent Order. If agreement is not reached within this fourteen (14) day period, EPA shall provide a written statement of its decision to the Companies which shall be incorporated into this Consent Order. For those matters which involve technical or scientific issues, EPA may consult with the TWG prior to issuing its decision. Within seven (7) days after receipt of EPA's written decision, the Companies shall advise EPA in writing whether they will implement EPA's decision. Failure by the Companies to implement the decision is non-compliance with this

26

27

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 21

Consent Order, and EPA may elect to implement the decision, or take any other action it may deem necessary within its authority.

19.3 These dispute resolution procedures shall not provide a basis for delay of any activities required by this Consent Order, unless the EPA Project Coordinator agrees in writing to a schedule extension or alteration.

XX. STIPULATED PENALTIES

produce a deliverable of acceptable quality, or otherwise fail to perform in accordance with the requirements of this Consent Order, the Companies shall pay stipulated penalties. Penalties shall begin to accrue on the day that performance is due or a violation occurs, and shall extend until such time as acceptable performance occurs.

20.2 Stipulated penalties shall accrue in the following amounts for each day of non-compliance as follows:

For Major Deliverables

Period of Failure

first seven (7) days

days eight (8) - fifteen (15)

days sixteen (16) - thirty (30)

penalty Per Violation Per Day

\$250 per day

\$1,000 per day

\$3,000 per day

\$3,000 per day

\$3,000 per day

Major deliverables for purposes of this section include each draft submission of: 1) the Methods Development Work Plan; 2)the

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 22

Methods Development Final Report; 3) the Exposure Study Work 1 Plan; and 4) the Exposure Study Final Report. 2 For Minor Deliverables and all other requirements 3 Penalty Per Violation Per Day Period of Failure 4 \$200 per day first seven (7) days 5 \$500 per day days eight (8) - fifteen (15) 6 \$2,000 per day days sixteen (16) - thirty (30) 7 days thirty-one (31) - ninety (90) \$5,000 per day 8 The Companies shall make all payments by 9 forwarding a certified or cashiers check payable to the 10 "Hazardous Substance Superfund" to: 11 U.S. Environmental Protection Agency 12 Region 10 Superfund Accounting 13 P.O. Box 360903M Pittsburgh, Pennsylvania 15251 14 Checks shall also state "Southeast Idaho Slag", the 15 Identification number TGB10N4J1, and the EPA docket number of 16 this Consent Order. A copy of the check and transmittal letters 17 shall be sent to the EPA Project Coordinator. 18 Payment shall be due within thirty (30) days 19 20.4 after receipt of a demand letter from EPA. The Companies shall 20 pay interest on any unpaid balance, which shall begin to accrue 21 at the end of the thirty (30) day period, at the rate established 22 by the U.S. Department of Treasury. 23 24 25 26 CONSENT ORDER FOR THE MONSANTO COMPANY 27

28

AND FMC CORPORATION - Page 23

REIMBURSEMENT XXI.

Following the issuance of this Consent Order, 21.1 EPA shall submit an accounting, including the cost documentation set forth in paragraph 21.2 below which may be applicable, of all past costs which are not inconsistent with the NCP, plus interest, incurred by the United States up to and including September, 1992. The Companies shall, within sixty (60) days after receipt of said accounting, remit a certified or cashier's check for the amount of costs requested by EPA, subject to the Companies' right to enter into dispute resolution to 1) dispute accounting errors or 2) argue that any costs sought by EPA are other than "not inconsistent with the NCP." The Companies shall identify any contested costs and the basis of their objection in writing. All undisputed costs shall be remitted by the Companies as set forth above. Disputed costs shall be paid, if required, ten (10) days after resolution of the dispute. The Companies shall have the burden of proving by a preponderance of the evidence any accounting error or inconsistency with the NCP. Interest shall accrue during any cost dispute. Interest shall begin to accrue on the day after the last date payment is due. The rate shall be the rate of interest on investments for the Hazardous Substances Superfund in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

After September 30th of each year in which 21.2 this Consent Order is in effect, EPA shall give the Companies an accounting of costs incurred by the United States in connection CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 24

28

1 2

3

4

5

6

7

8

9

10

11

12 13

14

15

16

17

18

19 20

21

22

23

24

25

26

with this Consent Order. Such costs shall include all direct and indirect costs incurred by the United States in overseeing the Companies' implementation of the requirements of this Consent Order, including but not limited to, contractor costs, cooperative agreement costs, compliance monitoring, including the collection and analysis of split samples, inspections, visits, discussions regarding disputes that may arise regarding this Consent Order, review and approval or disapproval of submissions, conduct of community relations activities, costs incurred to obtain access, and costs of doing or redoing any of the Companies' tasks. Summaries, including EPA's certified Agency Financial Management System summary data (SCORE Reports), or other summaries as certified by EPA, may serve as a basis for payment demands by EPA. The Companies may review the following EPA oversight cost documentation: EPA personnel timesheets, travel authorizations and vouchers, EPA contractor monthly invoices; and all applicable contract laboratory program ("CLP") invoices.

21.3 For all payments under this section, the
Companies Respondents shall remit a certified or cashier'
s check, made payable to the "Hazardous Substance Superfund," to
the following address or such other address as EPA may designate,
in writing:

U.S. EPA Region 10

Superfund Accounting
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

26

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 25

28

of the check and transmittal letters shall be sent simultaneously to the EPA Project Coordinator.

21.4 Payment shall be due within thirty (30) days after receipt of the cost accounting information from EPA. The Companies shall pay interest on any unpaid balance, which shall begin to accrue at the end of the 30-day period, at the rate of interest on investments for the Hazardous Substances Superfund in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

limited to accounting errors and the inclusion of costs outside the scope of this Consent Order, or which are other than "not inconsistent with the NCP." The Companies shall identify any contested costs and the basis of their objection in writing. All undisputed costs shall be remitted by the Companies in accordance with the schedule set forth above. Disputed costs shall be paid, if required, ten (10) days after resolution of the dispute. The Companies shall have the burden of proving by a preponderance of the evidence any EPA accounting error, or the inclusion of any cost outside the scope of this Consent Order or inconsistent with the NCP. Interest shall accrue during any cost dispute.

XXII. RESERVATIONS OF RIGHTS

The payment of stipulated penalties and costs required above, shall not preclude EPA from pursuing any other remedies or sanctions which may be available by reason of the

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 26

Companies' failure to comply with any portion of this Consent Order.

Order, each Party reserves all rights and defenses it may have.

Nothing in this Consent Order will affect EPA's removal authority or EPA's response or enforcement authorities, including but not limited to, the right to seek injunctive relief, stipulated penalties, statutory penalties, and/or punitive damages, nor preclude the United States from taking action to enforce this Consent Order, nor from taking any action pursuant to CERCLA, or any other applicable authority.

XXIII. OTHER CLAIMS

Companies waive the right to seek reimbursement under Section 106(b) of CERCLA, 42 U.S.C. § 9606(b), or to present a claim under Sections 111 or 112 of CERCLA, 42 U.S.C. § 9611 or 9612, for the costs of implementing this Consent Order. This Consent Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2). However, the Companies expressly reserve any and all claims they may have against any Department, Agency or organizational unit of the United States other than EPA. Such claims may include, but are not limited to, contribution and counterclaims relating to or arising out of matters covered by or referenced in this Consent Order.

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 27

XXIV. INDEMNIFICATION

The United States including its agencies, 24.1 offices, employees, and agents, shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by the Companies, their officers, employees, receivers, trustees, agents, or contractors in carrying out any activities pursuant to this Consent Order; nor shall the United States be deemed a party to any contract made by either Company, or their agents in carrying out any activities pursuant to this Consent Order. The Companies shall save and hold harmless the United States, its agencies, officers, employees, and agents from, and shall indemnify the United States against and for, any and all claims or causes of action arising from or on account of acts or omissions of the Companies, their agents or representatives, relating in any way to any activities pursuant to this Consent Order except to the extent such claims or causes of action relate to negligence, gross negligence or willful misconduct on the part of EPA or its contractors.

XXV. JUDICIAL REVIEW

25.1 The Companies shall not seek judicial review of this Consent Order in any action except an action by the United States to: 1) enforce this Consent Order; 2) recover costs incurred in connection with this Consent Order; or 3) compel action relating to the slag addressed by this Consent Order. Judicial review of this Consent Order shall be limited to the CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 28

22

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

24

25

26

27

administrative record. Otherwise applicable principles of administrative law shall govern whether any supplemental materials may be considered by the court. In considering objections raised in any judicial review, EPA's decisions shall be upheld unless the court finds they were arbitrary and capricious or otherwise not in accordance with law. Nothing in this paragraph shall limit any action by the Companies against any party, including any departments, agencies or subdivisions of the United States other than EPA, to recover costs incurred in implementing this Consent Order, or for damages or contribution pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607, or other applicable law; or any action pursuant to Section 310 of CERCLA, 42 U.S.C. § 9659, or Section 7002 of RCRA, 42 U.S.C. § 6972.

XXVI. COMMUNITY RELATIONS

26.1 Community relations activities relevant to the implementation of this Order are the primary responsibility of EPA and its representatives. The Companies shall provide appropriate assistance upon EPA request. Whenever possible, the parties agree to cooperate in the conduct of community relations activities.

The parties recognize the considerable public interest in matters covered by this Consent Order, and the value of broad community involvement in the process, particularly in intrusive or potentially disruptive activities such as home testing. The Parties agree to cooperate in keeping the affected CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 29

communities informed of the progress in the implementation of this Consent Order, and to facilitate community participation in planning and decision-making to the maximum extent practicable, including, but not limited to, review of EPA approved Work Plans, Graded Decision Guidelines, and other EPA approved technical interim work products.

XXVII. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

27.1 The effective date of this Consent Order shall be the date it is issued by EPA.

27.2 This Consent Order may be amended by mutual agreement of EPA and the Companies. Amendments shall be in

writing and shall be effective when executed by EPA.

XXVIII. COMPLETION

28.1 The requirements of this Consent Order shall be completed when the Companies demonstrate in writing and certify to EPA satisfaction that all requirements of this Consent Order have been satisfied, and EPA has approved the certification in writing. The Companies may request EPA approval of their certification of completion at any time following the submission of certified documentation.

XXIX. SIGNATORIES

29.1 The undersigned representatives certify that they are fully authorized to enter into this Consent Order and to

CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 30

1		
2	For FMC Corporation:	
3		
5	BY: Thomas Bernasel DATE: Oct	30, 1992
7		
8	IT IS SO ORDERED:	
9	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGI	ON 10
10		
11		
12	BY:DATE:	
13	Randall F. Smith, Director Hazardous Waste Division	
14	EPA Region 10	,
15		
16		
17		
18	•	
19	1	
20		
21		
22		
23		
24		
25		
26	· · · · · · · · · · · · · · · · · · ·	
27		
- 11	CONSENT ORDER FOR THE MONSANTO COMPANY AND FMC CORPORATION - Page 32	

execute and legally bind their respective principal hereto. For The Monsanto Company: NOV-2-92 DATE: 16-2-92 2. McCullough б

CONSENT ORDER FOR THE MONSANTO COMPANY

AND FMC CORPORATION - Page 31

1	
1	
2	For FMC Corporation:
3	
4	
5	BY:DATE:
6	
7	
8	IT IS SO ORDERED:
9	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 10
10	
11	DIMTOH
12 13	BY: Andall J. Smith, Director Hazardous Waste Division DATE: 11/4/92
14	EPA Region 10
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	CONSENT ORDER FOR THE MONSANTO COMPANY
28	AND FMC CORPORATION - Page 32

BY:			DATE:		
IT IS SO ORD UNITED STATE		NTAL PROTEC	CTION AGENC	Y, REGION :	10
Randall	F. Smith, D s Waste Div on 10	irector ision	DATE:		
		CONCL	JRRENCE		
INITIAL	War	Co	Co for	CKE	ore
NAME	GLASSER	ORDINE	воуг	KRUEGER	RUSH
DATE	11-2-92	11-2-92	11-2-92	11-2-92	11-2
		1 - 1 - 2 3 2			
0.0000000000000000000000000000000000000	1./	CONCL	JRRENCE	_	
INITIAL	ØK.				
NAME	KOWALSKI	SMITH			
DATE	11392				